REMARKS

Preliminarily, Applicants respectfully request the Examiner to return initialed Form PTO/SB/08 A & B for the Information Disclosure Statement filed March 29, 2007.

Review and reconsideration on the merits are requested.

In response to the rejections under 35 U.S.C. § 112, second paragraph, claim 2 has been amended to delete the phrase "said carbon dioxide amounts to at most equimolar to said radical polymerizable monomer" said to be inconsistent with another passage in claim 2 which also defines the carbon dioxide content. Claim 5 has been amended to provide antecedent basis for "continuous polymerization."

It is respectfully submitted that the claims as amended fully comply with 35 U.S.C. § 112, and withdrawal of the foregoing rejections is respectfully requested.

The amendment to claims 1 and 2 finds support, for example, at page 7, lines 4-7 and at page 8, line 29 - page 9, line 7 of the specification. The amendment to claim 5 is based on the language of original claim 1 and furthermore finds support at page 5, lines 22-25 of the specification.

Support for new claims 20-23 is found, for example, bridging pages 8-9 of the specification.

Claims 1, 4-11 and 18 were rejected under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over U.S. Patent 3,780,007 to Stallings. Claims 2, 3, 13-17 and 19 were rejected under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Stallings.

Applicants respond as follows.

The amended claims further characterize the "supercriticality-expression state" as being formed in a system which contains only restricted components. More specifically, the term "system" is a technical term in the physical chemistry field, and the expression "one-component system" means that only one component that affects the phase state of the reaction mixture is present. Although minor components that do not affect the phase state can be present, an aqueous medium, which *does* affect the phase state, is not present. This is described bridging pages 8-9 of the specification. That is, the amended claims exclude those fluoropolymer producing methods employing a reaction field including an aqueous medium. Particularly, the amendment to claims 1 and 2 excludes the polymerization method of Stallings which proceeds in an aqueous medium. Therefore, it is respectfully submitted that the amended claims define novel subject matter, and for this reason alone Applicants respectfully submit that the present claims are patentable over the cited prior art.

Applicants further comment on patentability of the amended claims, as follows.

Fluoropolymers are produced mainly by subjecting fluorolefins to emulsion polymerization in an aqueous medium using a water-soluble initiator, or to suspension polymerization using an water-soluble radical initiator. Conventional emulsion polymerization techniques using an aqueous medium are prone to the problems described bridging pages 1-2 of the present specification. That is, a key factor in solving the above-noted problems lies in producing fluoropolymers *in the absence of* an aqueous medium.

The fluoropolymer producing methods of amended claims 1 and 2 employ a restricted supercriticality-expression state where one or two or more kinds of radical polymerizable monomers (and carbon dioxide in the case of claim 2) which affect the phase state are present, to thereby exclude the aqueous medium of Stallings. The method of the present invention can provide fluoropolymers having a high molecular weight and a narrow molecular weight distribution, when polymerization is carried out continuously in a supercriticality-expression state while maintaining the fluoropolymer concentration at a certain level or higher, and without the use of an aqueous medium.

On the other hand, the process of Stallings comprises polymerizing vinylidene fluoride monomer in a specific aqueous suspending medium (see claim 1 of Stallings). That is, the process of Stallings is not capable of solving those problems associated with use of an aqueous medium. Further, Stallings does not teach or suggest modifying the process described therein so as to meet the restricted supercriticality-expression state as defined in amended claims 1 and 2 (i.e., excluding components other than a radical polymerizable monomer (and carbon dioxide) such as an aqueous medium)). Namely, Stallings does not teach or suggest a process which proceeds in the absence of an aqueous medium.

For the above reasons, it is respectfully submitted that the present claims are neither anticipated nor obvious over Stallings, and withdrawal of the foregoing rejections is respectfully requested.

Claim 12 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Stallings in view of U.S. Patent 6,716,942 to Saito.

Applicants respectfully traverse for the following reasons.

As indicated by the Examiner, Saito discloses the advantages resulting from use of non-ethylenic fluorocarbon in a fluoropolymer producing method. However, as discussed above, Stallings requires an aqueous medium. Therefore, the skilled artisan could not arrive at the fluoropolymer producing method of present claim 12 by combining Stallings with Saito. That is, Saito does not cure the deficiencies of Stallings with respect to use of an aqueous medium.

For the above reasons, it is respectfully submitted that claim 12 is patentable over the cited prior art, and withdrawal of the foregoing rejection under 35 U.S.C. § 103(a) is respectfully requested.

Withdrawal of all rejections and allowance of claims 1-22 is earnestly solicited.

In the event that the Examiner believes that it may be helpful to advance the prosecution of the present application, the Examiner is invited to contact the undersigned at the local Washington, D.C. telephone number indicated below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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